

REMARKS

Favorable reconsideration of this application is respectfully requested.

Claims 2-16, 24-31, and 33-42 are pending in this application. Claims 18-23 and 32 are cancelled by the present response without prejudice. Claims 1 and 17 were previously cancelled. Claims 2-11, 18-21, and 39-40 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. patent 4,714,519 to Pfiester in view U.S. patent 5,736,753 to Ohno et al. (herein "Ohno"). Claims 2, 7, 12, 22, and 41 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. patent 4,017,888 to Christie et al. (herein "Christie") in view of Ohno. Claims 13-16, 23, and 42 were rejected under 35 U.S.C. § 103(a) as unpatentable over Pfiester and Ohno as applied to claim 10, and further in view of Christie. Claims 24-28, 30-34, and 38 were rejected under 35 U.S.C. § 103(a) as unpatentable over Pfiester and Ohno as applied to claim 2, and further in view of U.S. patent 5,952,701 to Bulucea et al. (herein "Bulucea"). Claims 29, 32, and 35-37 were rejected under 35 U.S.C. § 103(a) as unpatentable over Christie and Ohno as applied to claim 12, and further in view of Bulucea.

Addressing each of the above-noted rejections, those rejections are traversed by the present response.

It is initially noted that independent claim 2 is amended by the present response to clarify features recited therein. Specifically, independent claim 2 now clarifies the semiconductor substrate having:

a (11-20), (000-1) or (0001) surface of a hexagonal or rhombohedral system P-type silicon carbide region, or a (110) surface of a cubic system P-type silicon carbide region;

The above-noted features positively recited in independent claim 2 are believed to distinguish over the applied art.

The above-noted features are similar to features previously recited in claims 18-23 but have further clarifying limitations. With respect to those previously pending claims 18-23 the

outstanding Office Action cited the teachings in Ohno in Figure 1 to meet such limitations. However, it is respectfully submitted that Figure 1 of Ohno does not teach or suggest the features now recited in independent claim 2.

Ohno discloses a semiconductor device having a channel formed on a (11-20) surface of a hexagonal system or in parallel to the (11-20) surface. However, Ohno does not teach or suggest either a semiconductor device having a channel formed on a (0001) or (000-1) surface of a hexagonal or rhombohedral system or a semiconductor device having a channel formed on a (110) surface of a cubic system. In addition, Ohno does not teach or suggest a buried channel structure on the (11-20) surface. Applicants also note that a difference in surface orientation causes a difference in oxidizing speed by one or more orders and a great difference in the physical property at an interface between an oxidized film and a SiC, resulting in a difference in an optimum value for X_j/L_{bc} .

In such ways, the applied art is not believed to meet the features recited in amended independent claim 2, and the claims dependent therefrom. Therefore, each of the pending claims are believed to be allowable over the applied art.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.



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Respectfully submitted,

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